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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/834,826

04/13/2001

Andy Catalin Negoi

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07/01/2004

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

SHAPIRO, LEONID

ART UNIT

PAPER NUMBER

2673

18

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/834,826

**Applicant(s)**

NEGOI ET AL.

**Examiner**

Leonid Shapiro

**Art Unit**

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-13,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-13,16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5-6, 8-13, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (US Patent No. 5,515,074) in view of Aoki (US Patent No. 5,793,221).

As to claim 1, Yamamoto teaches a driver circuit (See Fig. 1, items 10, 11, Col. 2, Lines 56-61) for display device (See Fig. 1, item 11, Col. 2, Lines 56-61) comprising: means for storing a basic setting of an adjustable characteristic (See Fig. 1, Items 17-18, Col.3, Lines 24-30) of the driver circuit (See Fig. 1, items 11,14, in description See Col. 3, Lines 1-7); characterized in that the driver circuit includes a means for storing a correction factor (proper density data) (See Fig. 1, item 13, Col. 2, Lines 65-67) to correct the basic setting of the adjustable characteristic of the driver circuit (See Fig. 1, items 11-14, 18, in description See Col. 3, Lines 1-42) and in that the driver circuit is operative to adjust the adjustable characteristic based on the base setting and the correction factor (proper density data) (See Fig. 1-2, items ST6,ST6A,ST7, in description See Col. 4, Lines 61-68 and Col.5, Lines 1-5).

Yamamoto does not show the driver circuit is operative to adjust the adjustable characteristic by modifying the value of the basic setting by the value of correction factor.

Aoki teaches to modify the value of basic setting by the value of the correction factor (equivalent to multiplying the measured data with correction factor stored in correction table) (See Fig. 1, items 15, 17, 30-31, Col. 5, Lines 32-42).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Aoki into the Yamamoto system in order to perform fine adjustment.

As to claim 2, Yamamoto teaches a means for storing and accessing a correction factor to correct the basic setting of the adjustable characteristic of the driver circuit (See Fig. 1, items 11-14, 18, in description See Col. 3, Lines 1-42).

As to claim 8, Yamamoto teaches to adjust the adjustable characteristic based on the base setting and the correction factor (See Fig. 1-2, items ST6,ST6A,ST7, in description See Col. 4, Lines 61-68 and Col.5, Lines 1-5).

As to claim 9, Yamamoto teaches to adjust the adjustable characteristic based on the base setting and the correction factor (See Fig. 1-2, items ST6,ST6A,ST7, in description See Col. 4, Lines 61-68 and Col.5, Lines 1-5).

As to claim 10, Yamamoto teaches a driver circuit (See Fig. 1, items 10, 11, Col. 2, Lines 56-61) for display device (See Fig. 1, item 11, Col. 2, Lines 56-61) comprising: means for storing a basic setting of an adjustable characteristic (See Fig. 1, Items 17-18, Col.3, Lines 24-30) of the driver circuit (See Fig. 1, items 11,14, in

description See Col. 3, Lines 1-7), a means for storing and accessing a correction factor (proper density data) (See Fig. 1, item 13, Col. 2, Lines 65-67) to correct the basic setting of the adjustable characteristic of the driver circuit (See Fig. 1, items 11-14, 18, Col. 3, Lines 1-42), means for generating a drive signal for the display device that is determined by the value of the stored basic setting (See Fig. 2, item 11, 14-15, ST1-ST3, Col. 3, Lines 49-56).

Yamamoto does not show means for generating a drive signal for the display device modified by the value of the stored correction factor.

Aoki teaches means for generating a drive signal for the display device that modified (multiplied) by the value of stored correction factor (coefficient of the pixel in Aoki reference) (See Fig. 1, items 15, 17, 30-31, Col. 5, Lines 32-42).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Aoki into the Yamamoto system in order to perform fine adjustment.

As to claim 3, Yamamoto teaches basic setting of an adjustable driver characteristic is a PROM type (See Fig. 1, item 14, in description See Col.3, Lines 3-4).

As to claim 5, Conover et al. teaches the driver circuit (voltage generator) (See Fig. 2, item 270, in description See Col. 8, Lines 34-35) and a particular display device connected to the driver circuit, characterized in that the correction factor in the means for storing a correction factor is based on an individual property of the particular display device (See Figs. 4, items 430-460 in description See from Col. 9, Line 57 to Col. 10, Line 8 and from Col. 10, Line 57 to Col. 11, Line 11).

As to claim 6, Yamamoto teaches a method of adjusting an individual property of a display module containing a display device (See Fig. 1, item 11, Col. 2, Lines 56-61) and a driver circuit connected to this display device (See Fig. 1, items 10, 11, Col. 2, Lines 56-61) characterized in that the method including following steps determining a basic setting based on expected characteristics of the display device and characteristics of the driver circuit, storing the determined basic setting to be used by the driver circuit (See Fig. 1, items 11,14, in description See Col. 3, Lines 1-7), storing the correction factor (proper density data) to be used by the driver circuit (See Fig. 1, item 13, 18, See Col. 2, Lines 65-67), modifying the value of the stored basic setting (See Fig. 2, items 11, 14, ST5, from Col. 3, Line 57 to Col. 4, Line 5).

Yamamoto does not show determining a correction factor to the basic setting based on the actual characteristic of the display device and adjusting the driver circuit by the value of stored correction factor thereby to adjust the display module.

Aoki teaches to modify the value of basic setting by the value of the correction factor (equivalent to multiplying the measured data with correction factor stored in correction table) (See Fig. 1, items 15, 17, 30-31, Col. 5, Lines 32-42).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Aoki into the Yamamoto system in order to perform fine adjustment.

As to claims 11, 16 Yamamoto teaches means for deriving the correction factor by a calibration operation based on upon measurement of optical quality of the display

module (See Fig. 2, items ST3-ST5, ST9, in description See from Col. 3, Line 57 to Col. 4, Line 5).

As to claim 12, Yamamoto teaches the basic setting is based upon a typical temperature dependence of a typical display device (See Fig. 2, items ST3-ST5, ST9, in description See from Col. 3, Line 57 to Col. 4, Line 5).

As to claim 13, Yamamoto teaches the correction factor is based on a particular model of display devices, all of which are then operable with the driver circuit and without adjustment of the contrast of the display device by the user (See Fig. 2, items ST3-ST5, ST9, in description See from Col. 3, Line 57 to Col. 4, Line 5).

As to claim 17, Yamamoto teaches deriving an output signal of the driver circuit based upon both stored basic setting and the stored correction factor (See Figs. 1-4, items 160, 270, in description See Col. 7, Lines 28-31 and from Col. 9, Line 57 to Col. 10, Line 8 and from Col. 10, Line 57 to Col. 11, Line 11).

2. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto and Aoki as aforementioned in claim 1 in view of Inoue (US Patent No. 5,517,212).

Yamamoto and Aoki do not teach the correction factor has a substantially smaller adjustment range than the basic setting of the adjustable characteristic of the driver circuit.

Inoue teaches the correction factor has a substantially smaller adjustment range than the basic setting of the adjustable characteristic of the driver circuit, with

range of adjustment of 2V with reference of peak voltage 20V (See Fig. 2-3, items 13, Vlcd, in description see Col. 4, Lines 39-44).

It would have been obvious to one of ordinary skill in the art at the time of invention to use range of adjustment in relation to peak voltage as described by Inoue in the Yamamoto and Aoki apparatus in order to increase flexibility of adjustment circuit (See Col.2, Lines 19-20 in Inoue reference).

### ***Response to Arguments***

3. Applicant's arguments filed on 04-08-04 with respect to claims 1-6, 8-13, 16-17 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

The Orlen et al. (US Patent 5,598,179) reference discloses method and apparatus for driving electronic display.

### ***Telephone inquire***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 703-305-5661. The examiner can normally be reached on 8 a.m. to 5 p.m..

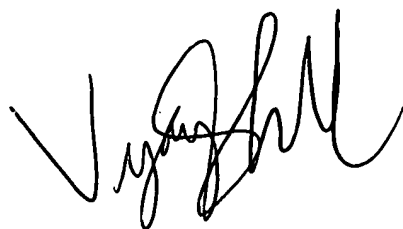


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ls

06.18.04

A handwritten signature in black ink, appearing to read 'Vijay Shankar', with a stylized, cursive script.

**VIJAY SHANKAR**  
**PRIMARY EXAMINER**